

entire absence of the sixth vein, and in the extraordinarily attenuated basal part of the wing, the genus *LEPTOPTEROMYIA* is proposed.

For *Melanostoma scitulum*, *rugosus*, *melanocerus*, etc. (Syrphidæ) the genus *RHYSOPS* is proposed. It is especially characterized by the elongate antennæ and the presence of transverse ridges and grooves on the face.

Xanthandrus Verrall is represented in Central and South America by *Syrphus* (*Melanostoma*) *bucephalus* Wied. (Syrphidæ).

The genus *Leucophenga* Mik (Drosophilidæ) is represented, among other species, by *Drosophila frontalis* Williston.

Lytogaster Becker (Ephydridæ) is recognized in two new species, one from Illinois, the other from Brazil.

The genus *Paramyia* (Agromyzidæ), hitherto known only from Grenada, has a species in Georgia.

For *Heterochroa ornata* Johnson (Geomyzidæ) the new genus *SPILOCHROA* is proposed. *Heterochroa* Schiner is a heteroneurid.

It may interest students of diptera to learn that the new edition of the Manual will contain nearly one thousand figures, illustrating between six and seven hundred of the North American genera.

The following well-known American dipterologists have contributed the discussion and tables of the listed families: Professor Adams, the Tachinidæ and Dexiidæ; Professor Aldrich, the Dolichopodidæ; Professor Brues, the Phoridæ; Professor Hine, the Tabanidæ; Professor Johannsen, the Chironomidæ; Professor Kellogg, the Blepharoceridæ; Professor Melander, the Empididæ.

ADDITIONS TO MY CATALOGUE OF NORTH AMERICAN DIPTERA.

By J. M. ALDRICH,

MOSCOW, IDAHO.

Since the appearance of the Catalogue, in May, 1905, I have been looking up literature, omissions, etc. Several entomologists kindly sent lists of species omitted, Dr. Johannsen in particular including most of the following in his list.

While spending the college year 1905-6 at Stanford University, I was enabled to examine almost all the literature that I had not

before seen, the libraries of the California Academy of Science and of the University of California being especially rich in entomological literature. Unfortunately the former has now been entirely destroyed.

The following additions are for the purpose of completing the Catalogue up to January 1, 1904, and not to bring it down to a later date.

Bigot's fragments in the Bulletin I have now straightened out, but I doubt if their importance would justify the use of a page or two of space to elucidate them.

Most of the omissions are clerical mistakes, due to insufficient checking up of my work; only a few papers describing new species escaped me. As the Catalogue was prepared in odd moments, evenings, holiday vacations, Saturdays, etc., through a period of seven years, I presume I need not apologize for my inability to avoid these errors, although I keenly regret that they occur in the finished work.

* ADDITIONAL GENERA AND SPECIES.

CHIRONOMUS.

halophilus PACKARD, Proc. Essex Inst., VI, 41; Report upon the Invert. Animals of Vineyard Sound. — Mass.; larvæ in seawater; adult not described.

PLESIASTINA.

mexicana GIGLIO-TOS, Boll. R. Univ. Torino, VI, no. 84. (*Ditomyia*.) — Mex. MIK, Wien. Ent. Zeit., XIII, 26, gen. ref.

zonata GIGLIO-TOS, Boll. R. Univ. Torino, VI, no. 84. (*Ditomyia*.) — Mex. MIK, Wien. Ent. Zeit., XIII, 26, gen. ref.

EUDICRANA (p. 140, before *Sciophila*).

LOEW, Cent., IX, 23, 1869.

obumbrata LOEW, loc. cit. — New York.

SCIARA.

æqualis WILLISTON, Trans. Ent. Soc. Lond., 1896, 265, in table, no desc. — St. Vincent, W. I.

cingulata RÜBSAAMEN, Berl. Ent. Zeitsch., XXXIX, 31, pl. I and III. — Ga.

picea RÜBSAAMEN, Berl. Ent. Zeitsch., XXXIX, 32, pl. I and III. — Ga.

ODONTONYX (p. 148, before *Rhynchosciara*).

RÜBSAAMEN, Berl. Ent. Zeitsch., XXXIX, 25, 1894.

helveolus RÜBSAAMEN, loc. cit., 27, pl. II and III. — Porto Rico.

RHYNCHOSCIARA (p. 148, before *Sciara*).

RÜBSAAMEN, Berl. Ent. Zeitsch., XXXIX, 29, 1894.

villosa RÜBSAAMEN, loc. cit., 29, pl. I-III. — Oaxaca, Mex., and S. A.

DIPLOSIS.

pictipes WILLISTON, Trans. Ent. Soc. Lond., 1896, 253. — St. Vincent, W. I.

CECIDOMYIA.

vaccinii OSTEN SACKEN, Monogr. N. A. Dipt., I, 196, gall and larva. — D. C., on *Vaccinium*.

atriplicis TOWNSEND, Amer. Nat. XXVII, 1021. — On *Atriplex canescens*: gall only.

PLECIA.

quadrivittata WILLISTON, Biologia, Dipt., I, 222. — Guerrero, Mex.

DILOPHUS.

stygius SAY (*bis*), Ins. of Louisiana, 15; Compl. Works, I, 309, with note on pre-occupation. — La.

STRATIOMYIA.

nigriventris LOEW, Cent., VI, 15, from Nebraska, is made a synonym of *Str. meigenii* by Johnson.

EUPARYPHUS.

major HINE, Ohio Nat., I, 112. — Boulder, Col.

AKRONIA (p. 189, before *Nemotelus*).

HINE, Ohio Nat., I, 113, 1901.

frontosa HINE, loc. cit., fig. — Akron, Ohio.

SYMPHOROMYIA.

limata COQUILLET, Jour. N. Y. Ent. Soc., II, 54. — S. Cal.

DISCHISTUS.

fuscipes BIGOT, Annales, 1892, 369. — N. A. Coquillett has made this a synonym of *Sparnopolius fulvus* (Trans. Amer. Ent. Soc., XXI, 90).

SPOGOSTYLUM.

succinctum COQUILLET, Trans. Amer. Ent. Soc., XXI, 96 (*Argyramaba*). — Ariz.

EXOPROSOPA.

trabalis LOEW, Cent., VIII, 20. — Mex.

ANTHRAX.

jaennickeana OSTEN SACKEN, Biologia, Dipt., I, '97, pl. II, f. 4 (*Isopenthes*). — N. Sonora, Mex.

sodom WILLISTON, Dipt. of Death Valley, 254 (*Stonyx*). — Death Valley, Cal.

SYSTÆCHUS.

solitus WALKER, List, II, 288 (*Bombylius*). — Fla.

OSTEN SACKEN, West. Dipt., 253, notes; O. S. Cat. also mentions Ga.

HENICOMYIA (p. 246, before *Psilocephala*).

COQUILLET, Jour. N. Y. Ent. Soc., VI, 187, 1898.

hubbardii COQUILLET, loc. cit. — Ft. Grant, Ariz.

THEREVA.

novella COQUILLETT, Canad. Ent., XXV, 200.— Los Angeles Co., Cal.

ATOMOSIA.

pusilla MACQUART, Dipt. Exot., 1, 2, 76.— N. A.

DASYLLIS.

albicollis BIGOT, Annales, 1878, 229.— Mexico.

ERAX.

dubius WILLISTON, Trans. Amer. Ent. Soc., 1885, 64, mentioned in the table ; the "Erax n. sp." described on p. 68 of the article is the same, according to SNOW, Kans. Univ. Quart., IV, 184, 1896.

PSILOPODINUS.

carolinensis BIGOT, Bull. Soc. Ent. France, 1888, xxix (*Psilopus*).— Carolina.

occidentalis BIGOT, Bull. Soc. Ent. France, 1888, xxix (*Psilopus*).— Cal.

pampæcilus BIGOT, Bull. Soc. Ent. France, 1888, xxix (*Psilopus*).— Hayti.

astequinus BIGOT, Bull. Soc. Ent. France, 1888, xxx (*Psilopus*).— Mex.

AGONOSOMA.

pallescens BIGOT, Bull. Soc. Ent. France, 1888, xxix (*Psilopus*).— North Carolina.

polychroma BIGOT, Annales, 1890, 289 (*Psilopus*).— Hayti.

RHAMPHOMYIA.

morrisoni BIGOT, Bull. Soc. Ent. France, 1887, cxli; Annales, 1889, 132 (both *morrisoni*).— Nevada.

NAUSIGASTER.

unimaculata TOWNSEND, Annals and Mag. Nat. Hist., XX, 24.— Cal.

MELANOSTOMA.

bellum GIGLIO-TOS, Bull. R. Univ. Torino, VII, no. 132; Ditt. del Mess., II, pl. II, f. 7, 7a.— Mex.

SPHÆROPHORIA.

syrphica GIGLIO-TOS, Bull. R. Univ. Torino, VII, no. 132; Ditt. del Mess., II, pl. II, f. 5, 5a.— Orizaba, Mex.

VOLUCELLA.

trigona GIGLIO-TOS, Bull. R. Univ. Torino, VII, no. 123; Ditt. del Mess., I, 52.— Orizaba, Mex.

CRIORHINA.

nigra WILLISTON, Synops. N. A. Syrph., 214 (*Cynorhina*).— White Mts., N. H.

CONOPS.

quadrinaculatus ASHMEAD, Orange Insects, 69, f. 63.— Fla.

SARCOPHAGA.

? **despecta** THOMSON, Eugenes Resa, 540. — Puna; a doubtful variety from Panama.

PHORBIA.

cepetorum MEADE, Ent. Mo. Mag., XIX, 218. — England and New York, the larvæ affecting onions in both places.

SCIOMYZA.

albovariorum COQUILLET, Proc. U. S. N. M., 1901, 616. — N. Y., N. H., N. C.

SEPSISOMA (p. 599, before *Stenomacra*).

JOHNSON, Ent. News, XI, 327, 1900.

flavescens JOHNSON, loc. cit., fig. — Westville, N. J.

EUTRETA.

nora DOANE, Jour. N. Y. Ent. Soc., VII, 184, pl. III, f. 9. — Idaho.

TEPHRITIS.

baccharis COQUILLET, Canad. Ent., XXVI, 73. — S. Cal.; larva makes a gall on *Baccharis viminea*.

CANACE (after *Cænia*, p. 631).

HALIDAY, Ann. Nat. Hist., III, 411, 1833.

snodgrassi COQUILLET, Proc. Wash. Acad. Sci., III, 378, 1901. — Galapagos Ids. JOHNSON, Ent. News, XIV, 100, oc. in New Jersey.

SEPSIS.

cynipsea LINNÉ, Fauna Suecica, p. 459 (*Musca*). — Europe.

SCHINER, Fauna Austr., II, 179.

COCKERELL, Proc. Davenport Acad. Nat. Sci., VII, 155, oc. in New Mexico, at Santa Fé and Mesilla (det. Coq.).

BRACHYPTEROMIA.

fimbriata WATERHOUSE, Proc. Zool., 1887, 163 (*Anapera*). — Ft. Wingate, N. M., on *Cypselus melanoleucus*.

WILLISTON, VII, 185 (*femorata*). — Wyoming, on same bird. [Speiser.]

MEGISTOPODA.

desiderata Speiser, Archiv. f. Naturgeschichte, 1900, 57, pl. III, f. 6. — Cuba and Brazil, on *Phyllostoma* sp. This is acknowledged by Speiser to be a synonym of *Pterellepsis aranea* Coq.

ORNITHOPTERHA.

geniculata BIGOT, Humming Bird, II, 49, 1892. — On *Phasomacrus costaricensis*.

SPEISER, Ann. Mus. Nat. Hungar., II, 393. Speiser *in litt.* gives the occurrence as Honduras, Costa Rica and Panama.

ADDITIONAL LITERATURE.

Bigot, J. M. F. Notes without title in Bull. Soc. Ent. France, 1888, XXIX and XXX. Contains descriptions of *Psilopus pallescens*, *carolinensis*, *occidentalis*, *pampæcilus*, and *astequinus*, new.

Bigot, J. M. F. In The Hummingbird, vol. II, 49, is *Ornithopterha geniculata*, from Central America.

Hine, J. S. Descriptions of New Species of Stratiomyidæ, with Notes on others. Ohio Naturalist, I, 112-114, fig. 11; May, 1901. Contains *Akronia frontosa* (n. gen. and sp.), *Euparyphus major*, n. sp., and a few notes.

Rübsaamen, Ew. H. Die Aussereuropäischen Trauermücken des Königlichen Museums für Naturkunde zu Berlin. Berl. Ent. Zeitsch., XXXIX, 1894, 17-42, 3 pl.

Contains *Odontonyx* and *Rhynchosciara*, new gen.; *Odontonyx helveolus*, *Rhynchosciara villosa*, *Sciara cingulata*, *picea* and *striata*; *Sciara nigra* Wied. redescribed and referred to *Odontonyx*.

Meade, R. H. Annotated List of British Anthomyidæ, Ent. Mo. Mag., XIX, 218, describes *Phorbia cepetorum*, an onion fly common to England and New York.

Speiser, P. Archiv für Naturgeschichte, 1900, 57, description of *Megistopoda desid-erata*, a synonym of *Pterellepsis aranea*.

Waterhouse, C. O. Note on a New Parasitic Dipterous Insect of the Family Hippoboscidae. Proc. Zool. Soc. Lond., 1887, 163, 164, fig. *Anapera fimbriata*, new, of which Williston's *Brachypteromyia femorata* is a synonym.

Ricardo, Miss Gertrude. A series of articles on the Tabanidæ of the British Museum, etc., in annals and Mag. Nat. Hist., ser. 7. Vol. V, 97-121; Jan., 1900. V, 167-182; Feb., 1900. VIII, 286-315; Oct., 1901. IX, 366-381; May, 1902. IX, 424-438; June, 1902.

These articles include many notes on the types of Walker and Bigot. The nomenclature is changed in the following cases:

Chrysops æstuans becomes a synonym of *marens*;

Chrysops atropos becomes a synonym of *divisus*;

Chrysops fugax becomes a synonym of *carbonarius*;

Chrysops nigriventris becomes a synonym of *pertinax*;

Chrysops furcatus is a valid species, not *striatus*.

TYPOGRAPHICAL ERRORS, ETC.

Page 9, midway, after *Holorusia rubiginosa*, add p. 139.

Page 9, lower, read **Beutenmüller**.

Page 10, lines 6, 8, and 14 from bottom, the year should be 1884, 1883, and 1881, respectively; in the third line from bottom, 241 should be 247.

Page 14, line 13, read **Bergentamm**.

Page 15, third line, read **XANIONOTUM**, and the same on p. 340.

Page 16, line 11, for 224 read 324.

Page 24, third line, read *Physocephala*.

Page 90, 12th line from bottom should begin with the specific name **superlineata**.

Page 105, under *Dixa centralis*, add — Dyar, Proc. Ent. Soc. Wash., V, 136, larva partly described.

Page 110, under *Ceratopogon varicolor*, add Dyar, Proc. Ent. Soc. Wash., V, 58, figs. pupa.

Page 111, under *Chironomus anonymus*, add Dyar. Proc. Ent. Soc. Wash., V, 57, desc. and figs. larva and pupa.

Page 113, under *Chironomus modestus*, add Dyar, Proc. Ent. Soc. Wash., V, 57, desc. and figs. larva and pupa.

- Page 118, under *Tanytus dyari*, add Dyar, Proc. Ent. Soc. Wash., V, 56, notes; figs. larva and pupa.
- Page 124, read **TOXORHYNCHITES**.
- Page 149, omit *Scaria alternata*.
- Page 150, the name of *Sciara glacialis* Lundbeck was changed to *permutata* by Lundbeck, Dipt. Groenl. II, 313.
- Page 156, the articles on *Asphondylia atriplicis* by Townsend and Cockerell were in the American Naturalist, not Annals, etc.
- Page 160, 3d line from bottom, read *tergata* for *togata*.
- Page 166, *Bibio fuliginosus* should be *fuliginus*.
- Page 197, for *Chrysops nigribimbo* read *nigrilimbo*.
- Page 217, second line from bottom, read *plagens* for *plangens*.
- Page 220, under *Acrocera fasciata*, add ?Emerton, Psyche, V, 404, figs. larva and adult; reared from *Amaurobis sylvestris*. Doubtfully ident.—Waltham, Mass.
- Page 275. Dr. M. Bezzi referred me to Dipterenfauna Südafrikas, p. 142 (214), line 13, for the name *Anarmostus*, which I find to be correct.
- Page 315, read **LITANOMYIA**.
- Page 316, read **BOREODROMIA** instead of **BOREOMYIA**.
- Page 333, read *pulchripes* instead of *pulchriceps*.
- Page 421, line 13, *setigena* should read *setigera*.
- Page 463, *Frontina chrysopygata* was first described as *chrysopyga*, in Bull. Soc. Ent. France, 1887, cxli.
- Page 466, *Masicera polita*, the locality should be White Mts., New Mexico.
- Page 473, *Blepharapeza trichopus* should be *trichopsis*.
- Page 480, *Gædiopsis cockerelli*, the locality should be White Mts., New Mexico.
- Page 509, *Homodexia flavipes*, strike out the reference to the Bull. Soc. Ent. France.
- Page 510, under *Sarcophaga*, before the note, add Wheeler, Psyche, V, 403, an undet. sp. bred from pocket-like cavity in neck of turtle (*Cistudo carolina*).
- Page 526, *Morellia callimera* was first described as *Curtoneura callidimera*, in Bull. Soc. Ent. France, 1887, clxxxi.
- Page 528, under *Musca domestica*, add Macloskie, Amer. Nat. XIV, 153-161, figs., anat. of proboscis.
- Page 578, *Sciomyza vittata* should be replaced by the following:

ANTICHÆTA.

- Haliday, Ann. Nat. Hist., II, 187, 1838.
- Hendel, Rev. Sciomyz., 78, 1902.
- analis** Meigen, Syst. Besch., VI, 15 (*Sciomyza*).—Europe.
- Haliday, Ent. Mag., I, 168 (*Tetanocera vittata*).
- Rondani, Atti Soc. Ital. Sc. Nat., 1868, 329 (*Sciomyza vittata* Hal.);
- Ann. dell Soc. Nat. Modena, 1877, 47 (*id.*).
- Osten Sacken, Cat. 177, oc. in N. A., on authority of "Loew *in litt.*"
- HENDEL, Revis. Sciomyz., 79.
- Page 593, *Ortalis platynema* should be *platystoma*.
- Page 598, *Steneretma latiuscula* should be *laticauda*.
- Page 618, midway, *Madiza annulicornie* should be *annulitarsis*.

Page 619, *Nemopoda cubensis* Bigot, Annales, 1886, 390.

Page 620, *Nemopoda cæruleiformis* should read *cæruleifrons*.

Page 652, under *Leucopis nigricornis*, add Needham, Psyche, 1903, 27, larvæ feed on *Aphis cephalanthi*. — Lake Forest, Ill.

DESCRIPTIONS OF SOME AMERICAN MOSQUITOES.

BY HARRISON G. DYAR AND FREDERICK KNAB,

WASHINGTON, D. C.

Aedes angustivittatus, new species.

Proboscis brown; palpi entirely dark; head with a narrow pale margin behind the eyes and the vertex broadly pale scaled; thorax brown with two narrow longitudinal golden yellow stripes extending the entire length, connected at the front margin by a narrow transverse stripe of the same color. In front of the base of the wing are many pale golden hairs. Pleura pale scaled. Abdomen black above, with light lateral patches at the front angles of the segments, beneath creamy white, segments with a narrow black margin behind. Legs dark, unbanded, the femora pale beneath and at base. All tarsal claws toothed in the female.

25 specimens, Port Limon, Costa Rica; Zent, 20 miles from Port Limon; Rio Aranjuez, near Puntarenas, Costa Rica (F. Knab); Bluefields, Nicaragua (W. F. Thornton).

Type. — Cat. no. 10140, U. S. Nat. Mus.

Nearly allied to *Aedes trivittatus* Coquillett, but the golden thoracic lines are narrower.

Aedes obturbator, new species.

Proboscis brown; palpi dark; head behind the eyes pale yellowish; at the sides a dark spot; thorax bronzy yellow, a median dark brown stripe running the whole length, the lateral margin brown with irregular outline; the scutellum is silvery; pleura pale scaled. Abdomen black above, with white basal bands; beneath entirely pale. Legs dark, unbanded, the femora pale beneath. All tarsal claws toothed in the female.

22 specimens, Tarpon Bay, Bahama Islands (T. H. Coffin).

Type. — Cat. no. 10141, U. S. Nat. Mus.

Allied to *Aedes auratus* Grabham, but the thorax has a brown median band.

Aedes balteatus, new species.

Proboscis black; palpi black; head behind the eyes pale bronzy, a large dark spot on each side; thorax bronzy yellow on the disk, a rounded deep brown patch on